

RECEIVED

APR 1 2002

TECH CENTER 1600/2900

PCT09

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/700,696B

DATE: 10/03/2001

TIME: 08:31:45

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\10032001\I700696B.raw

ENTERED

```

4 <110> APPLICANT: Rowe, Peter
6 <120> TITLE OF INVENTION: A Novel Polypeptide Hormone Phosphatonin
9 <130> FILE REFERENCE: VOSS001
11 <140> CURRENT APPLICATION NUMBER: US 09/700,696B
12 <141> CURRENT FILING DATE: 2000-11-17
14 <150> PRIOR APPLICATION NUMBER: PCT EP99/03403
15 <151> PRIOR FILING DATE: 1999-05-18
17 <150> PRIOR APPLICATION NUMBER: GB 9810681.8
18 <151> PRIOR FILING DATE: 1998-05-18
20 <150> PRIOR APPLICATION NUMBER: GB 9819387.3
21 <151> PRIOR FILING DATE: 1998-09-04
23 <160> NUMBER OF SEQ ID NOS: 25
25 <170> SOFTWARE: FastSEQ for Windows Version 4.0
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 1655
29 <212> TYPE: DNA
30 <213> ORGANISM: Homo sapiens
32 <400> SEQUENCE: 1
33 gtgaataaaag aatatagtat cagtaacaaa gagaatactc acaatggcct gaggatgtca      60
34 atttataccta agtcaactgg gaataaaaggg tttgaggatg gagatgatgc taticagcaa      120
35 ctacatgacc aagaagaata tggcgcagct ctcatcagaa ataacatgca acatataatg      180
36 gggccagtgga ctgcgattaa actcctgggg gaagaaaaca aagagaacac acctaggaat      240
37 gttctaataca taatcccagc aagtatgaat tatgctaaag cacactcgaa ggataaaaag      300
38 aagcctcaaa gagattccca agcccagaaa agtccagtaa aaagcaaaaag caccatcgt      360
39 attcaacaca acattgacta cctaaaacat ctctcaaaag tcaaaaaaat cccagtgat      420
40 tttgaaggca gcggttatac agatcttcaa gagagagggg acaatgatat atctcctttc      480
41 agtggggagc gccaaccttt taaggacatt cctggtaaag gagaagctac tggtcctgac      540
42 ctagaaggca aagatattca aacagggttt gcaggcccaa gtgaagctga gagtactcat      600
43 cttgacacaa aaaagccagg ttataatgag atcccagaga gagaagaaaa tgggtggaaat      660
44 accattggaa ctagggatga aactgcgaaa gaggcagatg ctgttgatgt cagccttgta      720
45 gagggcagca acgatatcat gggtagtacc aattttaagg agctccctgg aagagaagga      780
46 aacagagtgg atgctggcag ccaaaatgct caccaaggga aggttgagtt tcattaccct      840
47 cctgcaccct caaaagagaa aagaaaagaa ggcagtagtg atgcagctga aagtaccaac      900
48 tataatgaaa ttcctaaaaa tggcaaaggc agtaccagaa aggggtgtaga tcattctaatt      960
49 aggaaccaag caaccttaaa tgaaaaacaa aggtttccta gtaagggcaa aagtcagggc      1020
50 ctgcccattc cttctcgtgg tcttgataat gaaatcaaaa acgaaatgga ttcctttaat      1080
51 ggccccagtc atgagaatat aataacacat ggcagaaaat atcattatgt accccacaga      1140
52 caaaataatt ctacacggaa taagggtatg ccacaaggga aaggctcctg gggtagacaa      1200
53 cccattccca acaggaggtt tagttcccgt agaagggatg acagtagtga gtcactctgac      1260
54 agtggcagtt caagtgaagc cgatggtgac tagtccacca ggagttccca gcggggtgac      1320
55 agtctgaaga cctcgtcacc tgtgagttga tgtagaggag agccacatga cagctgacca      1380
56 ggtgaagaga ggaatagatg aagaactgag tgtagccaaa atcctggtct ccttggggga      1440
57 atttttgcta tcttaaatag cacagtataa aattctatta aaggctataa tgtttttaag      1500
58 caaaaaaaaaa tcattacaga tctatgaaat aggttaacatt tgagtaggtg tcatttaaaa      1560
59 atagttggtg aatgtcacia atgccttcta tgttggttgc tctgtagaca tgaaaataaa      1620
60 caatatctct cgatgataaa aaaaaaaaaa aaaaaa
62 <210> SEQ ID NO: 2

```

RAW SEQUENCE LISTING

DATE: 10/03/2001

PATENT APPLICATION: US/09/700,696B

TIME: 08:31:45

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\10032001\I700696B.raw

```

63 <211> LENGTH: 430
64 <212> TYPE: PRT
65 <213> ORGANISM: Homo sapiens
67 <400> SEQUENCE: 2
68 Val Asn Lys Glu Tyr Ser Ile Ser Asn Lys Glu Asn Thr His Asn Gly
69 1 5 10 15
70 Leu Arg Met Ser Ile Tyr Pro Lys Ser Thr Gly Asn Lys Gly Phe Glu
71 20 25 30
72 Asp Gly Asp Asp Ala Ile Ser Lys Leu His Asp Gln Glu Glu Tyr Gly
73 35 40 45
74 Ala Ala Leu Ile Arg Asn Asn Met Gln His Ile Met Gly Pro Val Thr
75 50 55 60
76 Ala Ile Lys Leu Leu Gly Glu Glu Asn Lys Glu Asn Thr Pro Arg Asn
77 65 70 75 80
78 Val Leu Asn Ile Ile Pro Ala Ser Met Asn Tyr Ala Lys Ala His Ser
79 85 90 95
80 Lys Asp Lys Lys Lys Pro Gln Arg Asp Ser Gln Ala Gln Lys Ser Pro
81 100 105 110
82 Val Lys Ser Lys Ser Thr His Arg Ile Gln His Asn Ile Asp Tyr Leu
83 115 120 125
84 Lys His Leu Ser Lys Val Lys Lys Ile Pro Ser Asp Phe Glu Gly Ser
85 130 135 140
86 Gly Tyr Thr Asp Leu Gln Glu Arg Gly Asp Asn Asp Ile Ser Pro Phe
87 145 150 155 160
88 Ser Gly Asp Gly Gln Pro Phe Lys Asp Ile Pro Gly Lys Gly Glu Ala
89 165 170 175
90 Thr Gly Pro Asp Leu Glu Gly Lys Asp Ile Gln Thr Gly Phe Ala Gly
91 180 185 190
92 Pro Ser Glu Ala Glu Ser Thr His Leu Asp Thr Lys Lys Pro Gly Tyr
93 195 200 205
94 Asn Glu Ile Pro Glu Arg Glu Glu Asn Gly Gly Asn Thr Ile Gly Thr
95 210 215 220
96 Arg Asp Glu Thr Ala Lys Glu Ala Asp Ala Val Asp Val Ser Leu Val
97 225 230 235 240
98 Glu Gly Ser Asn Asp Ile Met Gly Ser Thr Asn Phe Lys Glu Leu Pro
99 245 250 255
100 Gly Arg Glu Gly Asn Arg Val Asp Ala Gly Ser Gln Asn Ala His Gln
101 260 265 270
102 Gly Lys Val Glu Phe His Tyr Pro Pro Ala Pro Ser Lys Glu Lys Arg
103 275 280 285
104 Lys Glu Gly Ser Ser Asp Ala Ala Glu Ser Thr Asn Tyr Asn Glu Ile
105 290 295 300
106 Pro Lys Asn Gly Lys Gly Ser Thr Arg Lys Gly Val Asp His Ser Asn
107 305 310 315 320
108 Arg Asn Gln Ala Thr Leu Asn Glu Lys Gln Arg Phe Pro Ser Lys Gly
109 325 330 335
110 Lys Ser Gln Gly Leu Pro Ile Pro Ser Arg Gly Leu Asp Asn Glu Ile
111 340 345 350
112 Lys Asn Glu Met Asp Ser Phe Asn Gly Pro Ser His Glu Asn Ile Ile

```

RAW SEQUENCE LISTING

DATE: 10/03/2001

PATENT APPLICATION: US/09/700,696B

TIME: 08:31:46

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\10032001\I700696B.raw

```

113          355          360          365
114 Thr His Gly Arg Lys Tyr His Tyr Val Pro His Arg Gln Asn Asn Ser
115          370          375          380
116 Thr Arg Asn Lys Gly Met Pro Gln Gly Lys Gly Ser Trp Gly Arg Gln
117 385          390          395          400
118 Pro His Ser Asn Arg Arg Phe Ser Ser Arg Arg Arg Asp Asp Ser Ser
119          405          410          415
120 Glu Ser Ser Asp Ser Gly Ser Ser Ser Glu Ser Asp Gly Asp
121          420          425          430
122 <210> SEQ ID NO: 3
123 <211> LENGTH: 4
124 <212> TYPE: PRT
125 <213> ORGANISM: Artificial Sequence
127 <220> FEATURE:
128 <223> OTHER INFORMATION: glycosaminoglycan attachment motif
130 <400> SEQUENCE: 3
131 Ser Gly Asp Gly
132 1
133 <210> SEQ ID NO: 4
134 <211> LENGTH: 7
135 <212> TYPE: PRT
136 <213> ORGANISM: Artificial Sequence
138 <220> FEATURE:
139 <223> OTHER INFORMATION: metalloproteinase cleavage site
141 <400> SEQUENCE: 4
142 Ala Asp Ala Val Asp Val Ser
143 1          5
144 <210> SEQ ID NO: 5
145 <211> LENGTH: 22
146 <212> TYPE: PRT
147 <213> ORGANISM: Homo sapiens
149 <400> SEQUENCE: 5
150 Ser Ser Arg Arg Arg Asp Asp Ser Ser Glu Ser Ser Asp Ser Gly Ser
151 1          5          10          15
152 Ser Ser Glu Ser Asp Gly
153          20
154 <210> SEQ ID NO: 6
155 <211> LENGTH: 21
156 <212> TYPE: PRT
157 <213> ORGANISM: Homo sapiens
159 <400> SEQUENCE: 6
160 Ser Ser Arg Ser Lys Glu Asp Ser Asn Ser Thr Glu Ser Lys Ser Ser
161 1          5          10          15
162 Ser Glu Glu Asp Gly
163          20
166 <210> SEQ ID NO: 7
167 <211> LENGTH: 14
168 <212> TYPE: PRT
169 <213> ORGANISM: Homo sapiens

```

RAW SEQUENCE LISTING

DATE: 10/03/2001

PATENT APPLICATION: US/09/700,696B

TIME: 08:31:46

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\10032001\I700696B.raw

```

171 <400> SEQUENCE: 7
172 Asp Ser Ser Glu Ser Ser Asp Ser Gly Ser Ser Ser Glu Ser
173 1 5 10
176 <210> SEQ ID NO: 8
177 <211> LENGTH: 38
178 <212> TYPE: DNA
179 <213> ORGANISM: Artificial Sequence
181 <220> FEATURE:
182 <223> OTHER INFORMATION: primer with overhang linker sequence
185 <400> SEQUENCE: 8
186 gacgacgaca aggtgaataa agaatatagtc atcagtaa 38
188 <210> SEQ ID NO: 9
189 <211> LENGTH: 35
190 <212> TYPE: DNA
191 <213> ORGANISM: Artificial Sequence
193 <220> FEATURE:
194 <223> OTHER INFORMATION: primer with overhang linker sequence
197 <400> SEQUENCE: 9
198 ggaacaagac ccgtctagtc accatcgctc tcaact 35
200 <210> SEQ ID NO: 10
201 <211> LENGTH: 15
202 <212> TYPE: PRT
203 <213> ORGANISM: Homo sapiens
205 <400> SEQUENCE: 10
206 Asp Asp Ser Ser Glu Ser Ser Asp Ser Gly Ser Ser Ser Glu Ser
207 1 5 10 15
210 <210> SEQ ID NO: 11
211 <211> LENGTH: 16
212 <212> TYPE: PRT
213 <213> ORGANISM: Homo sapiens
215 <400> SEQUENCE: 11
216 Asp Asp Ser Ser Glu Ser Ser Asp Ser Gly Ser Ser Ser Glu Ser Asp
217 1 5 10 15
220 <210> SEQ ID NO: 12
221 <211> LENGTH: 22
222 <212> TYPE: PRT
223 <213> ORGANISM: Homo sapiens
225 <400> SEQUENCE: 12
226 Ser Ser Arg Arg Arg Asp Asp Ser Ser Glu Ser Ser Asp Ser Gly Ser
227 1 5 10 15
228 Ser Ser Glu Ser Asp Gly
229 20
232 <210> SEQ ID NO: 13
233 <211> LENGTH: 14
234 <212> TYPE: PRT
235 <213> ORGANISM: Homo sapiens
237 <400> SEQUENCE: 13
238 Asp Ser Ser Asp Ser Ser Asp Ser Ser Ser Ser Asp Ser
239 1 5 10

```

RAW SEQUENCE LISTING

DATE: 10/03/2001

PATENT APPLICATION: US/09/700,696B

TIME: 08:31:46

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\10032001\I700696B.raw

```

242 <210> SEQ ID NO: 14
243 <211> LENGTH: 15
244 <212> TYPE: PRT
245 <213> ORGANISM: Homo sapiens
247 <400> SEQUENCE: 14
248 Asp Asp Ser Ser Asp Ser Ser Asp Ser Ser Asp Ser Ser Asp Ser
249 1 5 10 15
252 <210> SEQ ID NO: 15
253 <211> LENGTH: 14
254 <212> TYPE: PRT
255 <213> ORGANISM: Homo sapiens
257 <400> SEQUENCE: 15
258 Asp Ser Ser Asp Ser Ser Asp Ser Asn Ser Ser Ser Asp Ser
259 1 5 10
262 <210> SEQ ID NO: 16
263 <211> LENGTH: 14
264 <212> TYPE: PRT
265 <213> ORGANISM: Homo sapiens
267 <400> SEQUENCE: 16
268 Asp Ser Ser Glu Ser Ser Asp Ser Ser Asn Ser Ser Asp Ser
269 1 5 10
272 <210> SEQ ID NO: 17
273 <211> LENGTH: 14
274 <212> TYPE: PRT
275 <213> ORGANISM: Homo sapiens
277 <400> SEQUENCE: 17
278 Asp Ser Ser Asp Ser Ser Asp Ser Ser Asn Ser Ser Asp Ser
279 1 5 10
282 <210> SEQ ID NO: 18
283 <211> LENGTH: 16
284 <212> TYPE: PRT
285 <213> ORGANISM: Homo sapiens
287 <400> SEQUENCE: 18
288 Asp Asp Ser His Gln Ser Asp Glu Ser His His Ser Asp Glu Ser Asp
289 1 5 10 15
292 <210> SEQ ID NO: 19
293 <211> LENGTH: 11
294 <212> TYPE: PRT
295 <213> ORGANISM: Homo sapiens
297 <400> SEQUENCE: 19
298 Ser Asp Glu Ser His His Ser Asp Glu Ser Asp
299 1 5 10
302 <210> SEQ ID NO: 20
303 <211> LENGTH: 11
304 <212> TYPE: PRT
305 <213> ORGANISM: Homo sapiens
307 <400> SEQUENCE: 20
308 Ser Asp Ser Ser Ser Ser Ser Asp Ser Ser Asp
309 1 5 10

```

VERIFICATION SUMMARY

DATE: 10/03/2001

PATENT APPLICATION: US/09/700,696B

TIME: 08:31:47

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\10032001\I700696B.raw